

REMARKS

Reconsideration is respectfully requested in light of the foregoing amendments and remarks that follow.

Claims 1, 4, and 6-7 are pending. Claim 1 has been amended to address the points raised by the Examiner and to correct a typographical error. Likewise, claim 7 has been corrected to correct the point of reference. Support for the change is amply identified by the Examiner in the Office Action.

The objection to the drawings is again noted. Conforming drawings will be submitted upon an indication of allowable subject matter. The Examiner is thanked for holding the requirement in abeyance until there is an indication of allowable subject matter.

The withdrawal of the rejection of claims 1 and 5-7 under 35 U.S.C. 102 (b) is also noted with appreciation.

Claims 1, 6 and 7 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims have been amended to address the point raised by the Examiner. The specification will be amended to be consistent with regard to the obvious intended reference point. The Examiner is thanked for his efforts in noting the inconsistency.

Withdrawal of the rejection is respectfully requested in light of the amendments to the claims.

Claims 1, 6 and 7 are rejected under 35 U.S.C. 103(a) as being obvious over Mangold et al. in view of Azechi et al. (U.S. Patent No. 6,331,588). Applicants respectfully traverse.

The Examiner urges that it would have been obvious to select LSR as the silicone. Azechi et al. is relied upon to teach LSR.

Applicants urge that there is insufficient guidance to have lead one to the selection of the LSR species.¹ Silicone (genus) is mentioned as a rubber for which fillers use is suitable. Please

¹ It is not seen that the Court in KSR International Co. V. Teleflex Inc., 550 U.S. ___, 82 USPQ2d 1385 (2007), has lessen the burden relative to the guidance needed for a selection to establish a prima facie obvious. Without reliance on Applicants' specification the number of rubber types is significant. There is no information relative to the

note that Mangold et al. teach that their silica has a distinctly acid pH. The instant claimed silica has a more neutral pH, presumably due to its method of preparation. See Table 4. Acid pHs are not necessarily a desired property in fillers since they can lead to hydrolysis of the polymer.²

Mangold et al. describe the production of fumed silica doped with potassium in example 5.³ In col. 3, starting at line 26, Mangold et al. states that the pyrogenically prepared oxides of metals and/or nonmetals, doped according to their invention, "can be used as fillers, as support materials, as catalytically active substances,..., as additives in the silicone and rubber industry, to adjust the rheology of liquid systems, for heat-resistant stabilization, ... and the like."

Azechi et al. describe an addition curing type liquid silicone rubber composition comprising an addition organopolysiloxane and reinforcing silica, which can be fumed silica, precipitated silica or fired silica. Azechi et al. do not describe the use of potassium doped silica. The silica Azechi et al. prefer are surface treated silica fines. There is no teaching in Azechi et al. of the use of silica to lower viscosity or lower Williams plasticity. The properties associated with the Azechi et al. composition are extended pot life and the prevention of thickening. See col. 1 at lines 40-45. These properties do not appear to be connected with the Mangold et al.

specific benefits obtained by selecting LSR to suggest its selection from the other possibilities. The teachings relied upon in the primary reference is of a general nature. The degree of information present in the evidence here to aid in the selection is more akin to an "obvious to try" rationale. It exists therefore "I'll do it." Such is not statutory obviousness.

² See Bergstrom et al. (US 6,384,125).

³ The product shown in Example 5 has a BET-surface of 199m². The experimental conditions for its preparation are summarized in Table 1. The characteristics of various products including that of Example 5 are listed in Table 2. (No other product parameters for the Example 5 product are given.). The preparatory method shown in example 5 of Mangold et al. differs from that in the examples of the instant specification. For example, the preparatory method of the instant invention uses additional oxygen while Mangold et al. does not. The reagent amounts, e.g. hydrogen, SiCl₄ air, also differ.

According to Applicants' Example 1 (the VP 3739), a fumed silica doped with potassium is produced which has a BET-surface of 107 m²/g and no DBP-adsorption (see Table 4 on page 17; note published application after paragraph 79). According to Applicants' Example 2 (3650), a fumed silica doped with potassium is produced which has a BET-surface of 127 m²/g and no DBP-adsorption (see table 4 on page 17; note published application after paragraph 79).

As best as the "filler" products can be compared, they appear to differ in their characteristics as well as in their methods of preparation.

product. Mangold et al mention the possible uses: "to adjust the rheology of liquid systems, for heat stabilization purposes".

Further, in the evaluation the sufficiency of the prima facie case, the consideration of the properties imparted to LSR by the claimed product should be seen as rebutting a proper prima facie case, e.g. the potassium doped silicas produce in LSR-silicone rubber a flowable formulation (see page 19, line 23 to page 23) due to the lowered viscosity. Further, the LSR-silicone rubber of the invention show lower values of tensile strength, tear-growth resistance hardness and improved transparency.⁴

Withdrawal of the rejection is respectfully requested since a proper prima-facie case has not been made or if deemed to have been made rebutted by the showings provided within the specification.⁵

Claim 4 is rejected under 35 U.S.C. 103(a) as being obvious over Mangold et al. in view of Itoh et al. (U.S. Patent No. 4,755,554). Applicants respectfully traverse.

The Mangold et al. is discussed above.

As above, it appears that the Examiner again is relying on this "general" Mangold teaching of a use in silicone and the rubber industry as a generic teaching of "silicone" to suggest the obviousness of the selection of HTV silicone. It appears that Itoh et al. is cited to show the existence of HTV.

Applicants urge that there is insufficient guidance present to have rendered the selection of the HTV species obvious. The proposed selection appears to be based on an "obvious to try" rationale. Relative to the selection of HTV, there is nothing to suggest its selection from the myriad of other possible silicone rubber products.⁶

⁴ Attention is directed to page two of the specification starting at line 3 where it is indicate that the low-structure fumed silica imparts to silicone rubber decidedly novel properties- markedly lower viscosity and flow limits. More explanation is found on page 6 starting at line 31. See also Tables 6, 7a and 7b. These results are unexpected from the art relied upon. It is not clear why the Examiner would not find the claims commensurate with these results.

⁵ If the Examiner is of the opinion that the results shown in the specification, e.g. transparency, are not commensurate with the scope of the present claims or are not unexpected. His comments or guidance is respectfully requested. There is nothing in the references that suggest the transparency characteristic or enhanced tear resistance.

⁶ Table 5 (page 17) suggest that there is a uniqueness to the selection of the claimed HTV silicone and the claimed filler relative to undoped fumed silica fillers. The benefits are listed in the Table.

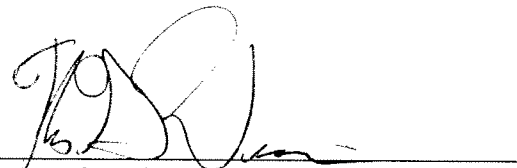
Itoh et al. (U.S. Patent No. 4,755,554) describes a silicone rubber composition suitable for hot-air vulcanization under normal pressure. The silicone composition contains fumed silica. Itoh et al. do not describe potassium doped silica or its use in HTV-silicone rubber. Itoh et al. do not describe a lower Williams plasticity which results from the silica-type they employ.

Further, the sufficiency of the prima facie case should be considered in light of the unexpected lower Williams plasticity values obtained by the invention (see pages 7 to 8). Further, the HTV-silicone rubbers of the invention employ the silica according to examples 3 and 4, which are not described in Mangold et al. Relative to the lower Williams plasticity values obtained by the invention, there is no reason provided in the Office Action as to why these values would have been expected from the art relied upon.

Having addressed the each of the rejections and objections set forth in the Office Action, the application is believed to be in condition for allowance for the reasons set forth above and a notice to that effect is respectfully requested.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is hereby invited to telephone the undersigned at the number provided.

Respectfully submitted,



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